

principally the cliffs of the islets, such as Egg Island, where it breeds in swarms. It does not appear to associate with either the Tropic- or the White bird, but is one of the most abundant species at St. Helena.

[** Some time previously to the receipt of the foregoing paper, our good friend Captain Beavan very kindly forwarded us some notes on the Ornithology of St. Helena, which, for want of room, we were then unable to print. We feel, therefore, that some apology would be due to him for the preference we have now shown to the article of a later contributor, were it not for the fact that Mr. Melliss has been resident in the island for some years, whereas Captain Beavan had paid but a passing visit to it when on his homeward voyage in 1867, and accordingly the former has had many more opportunities of making observations than the latter. That Captain Beavan, however (as would be expected), used his limited time (only two days) well is plain from his having included in his notes every *wild* species mentioned by Mr. Melliss; and he further obliged us by sending us a copy of 'The St. Helena Almanac and Annual Register' for 1867, published at the office of the Government, wherein is given a very brief notice of the vertebrate fauna of this island. From this publication may also be gathered the fact that some other species, not included by Mr. Melliss, have been imported into the Island: thus, in a list of "Remarkable Events," it is mentioned that in the year 1824 "English Singing Birds" were introduced on the 18th November, and in 1852 "Thrushes, Blackbirds, Larks, and Starlings," were imported; again, in 1853, "South-American Mocking-Birds" were introduced. From the silence of Mr. Melliss as to these species, we may safely conclude that the attempts to acclimatize them, for some reason or other, failed.—ED.]

VII.—*Additional Notes on Mr. Lawrence's List of Costa-Rica Birds.* By OSBERT SALVIN, M.A., F.Z.S., &c.

SINCE my last communication on this subject (*Ibis*, 1869, pp. 310-319), Mr. Lawrence has concluded his Catalogue of

Birds found in Costa Rica (Ann. Lyc. N. H. New York, ix. pp. 141-149*), and appended thereto some remarks correcting and confirming his previous identification of certain species. A supplementary list is also added of such species as had been subsequently received by the Smithsonian Institution.

Mr. Godman's and my collection has also been enriched by some species not included in Mr. Lawrence's catalogue. It is my intention now to enumerate these, and to add a few rectifications of nomenclature that additional material has enabled me to ascertain.

(58.) *BASILEUTERUS MELANOTIS*.

Two specimens of a *Basileuterus*, agreeing accurately with Mr. Lawrence's description, have been recently sent us by Arcé from Veragua. They are hardly appreciably darker on the upper surface than Bogotá and Ecuador specimens attributed by Mr. Sclater (Cat. Am. B. p. 34) to *B. bivittatus* (Lafr. & D'Orb.); in other respects they are quite the same. These skins answer to D'Orbigny's description (Voy. Ois. p. 324), and also to that of *Myiodioides tristriatus*, Tsch. (Faun. Per. p. 193). I have not seen Bolivian or Peruvian specimens, but I have little doubt that the same species is found in all the above-mentioned countries.

(65.) *STELGIDOPTERYX FULVIGULA*.

Since writing my note on this species (Ibis, 1869, p. 313), we have received a specimen from Carmiol which, upon examination, proved to be the true *S. fulvigula*, Baird, and shows that the specimen so called which we received from the Smithsonian Institution is not *S. fulvigula* at all, but *S. fulvipennis*, Sel., agreeing, as before stated, with Guatemalan examples attributed to that species. The Smithsonian specimen (No. 41246)

* There is nothing on the second portion of this catalogue to show that it was issued some months later than the first portion. What appears to have been the case is that separate copies of the latter were struck off and distributed by Mr. Lawrence some time before the issue of the part of the Annals of the New-York Lyceum which contains the paper. What is the true date of this communication? The first portion bears the date "April 1868" (*qua*. that of reading?); and in the second, reference is made to the number of 'Exotic Ornithology' issued in October 1868.

was collected at "Atiro *, Costa Rica, 15/3 65, by J. Carmiol." The name *Stelgidopteryx fulvigula* on the label is in Mr. Lawrence's handwriting.

It remains, then, to compare our recently acquired specimen with *S. uropygialis*, Lawr., of Panama; and I must say that I cannot perceive any difference whatever either in size or coloration, and conclude that the specimens upon which the species was founded are immature, as Prof. Baird (Rev. Am. B. p. 318) seems half to suspect.

Anyhow there are two species of this form in Costa Rica:—

1. STELGIDOPTERYX UROPYGIALIS (Lawr.), Ibis, 1863, p. 181. *S. fulvigula*, Baird, Rev. Am. B. p. 318.

2. STELGIDOPTERYX FULVIPENNIS, Sel.; Baird, Rev. Am. B. p. 316. *S. fulvigula*, Lawr., Ann. Lyc. N. Y. p. 96 (*partim*).

It will be seen that the specimens upon which Prof. Baird founded *S. fulvigula* were all collected at Angostura. Mr. Lawrence, on the other hand, gives the locality "Atiro" only. Hence it would appear that Mr. Lawrence had not the types of *S. fulvigula* before him when compiling his list; and therefore probably the Atirro specimens are all *S. fulvipennis*.

(118.) TACHYPHONUS PROPINQUUS.

The position of this species is at present anything but satisfactory. Mr. Lawrence changed the name of the bird from *T. rubrifrons* to *T. propinquus* (Proc. Ac. Philad. 1867, p. 94), because it was shown that the red forehead, from which the name was derived, was due to a stain and not to natural colour. The name *propinquus* was chosen from the near relationship of the supposed species to *T. xanthopygius*, Sel.; but no differential characters whatever were given. I imagine that Mr. McLeannan's statement that the sexes were alike has misled Mr. Lawrence; but, with all due deference to Mr. McLeannan's original observations, I cannot help thinking that in this case he was wrong. Analogy certainly points to the existence of a difference between the coloration of the sexes in this species in a degree similar to what we find in *T. xanthopygius*. Indeed the species would not be a *Tachyphonus* at all did not a difference

* Lege "Atirro," cf. Von Frantzius, J. f. Orn. 1869, p. 201, note.

exist between the coloration of male and female. What I believe to be the actual state of the case is this, that neither Mr. Lawrence nor I have ever seen an adult male of this form either from Panama or north of the Isthmus. From a female specimen in our collection from Panama, I feel convinced that the so called species is nothing more than *T. xanthopygius*, to which both Mr. Lawrence's names must be applied as synonyms.

(171.) *SYNALLAXIS NIGRIFUMOSA*.

Mr. Selater and I have carefully compared an extensive series of specimens of this form, from Costa Rica, Panama, and New Granada, with the type of *S. pudica*, Sel. (Cat. Am. B. p. 151), and have come to the conclusion that Costa-Rican are undistinguishable specifically from more southern examples, and that the difference observable in the intensity of the dark colouring in some individuals is due to age and sex.

(177.) *AUTOMOLUS RUFESCENS*.

A specimen sent us by Carmiol, corresponding accurately with Mr. Lawrence's description of the above-named species, differs in no way from the type-specimen of *Philydor panerythrus*, Sel.*; in Mr. Selater's collection, with which I have also compared it.

(179.) *ANABAZENOPS LINEATUS*.

Having before me four specimens of this species from Costa Rica and Veragua, I am able to state that they do not differ from the types of *A. subalaris*, Sel. (P. Z. S. 1859, p. 141), with which I have compared them. The specimen mentioned in Mr. Selater's 'Catalogue,' no. 971 (*b.*) from Pallatanga, as "perhaps different" is in immature dress. Two of our Veraguan specimens are in similar plumage, and differ from the adult in having the breast deep rufous, the longitudinal light markings not appearing; the head too is much darker.

+ (197.) *THAMNOPHILUS PUNCTATUS*.

Carmiol has recently sent examples of this species; and we have also received a number of specimens from Arcé from Veragua. According to the latter the sexes are almost similar,

* *Philydor semirufus*, Sel., Cat. Am. B. Supp. p. 360: *P. panerythrus*, *Id.*, P. Z. S., 1862, p. 110. Ex N. Granada (Bogotá).

the female being rather more ashy on the under surface than the male.

(283 & 284.) *CAPITO BOURCIERI* and *C. HARTLAUBI*.

It has long struck me as singular that these two supposed species should always be found together. Upon examination of all the specimens that had the sexes marked, I found that all the *C. bourcierii* were males, and all the *C. hartlaubi* females, suggesting that the two supposed species were sexes of one and the same. In a small collection from Ecuador, obtained from Mr. Gould, I found a specimen with the head tinged with golden yellow, just as in *C. hartlaubi*; while the forehead and throat, as well as a few feathers on the sides of the occiput, were red. In fact this specimen (a young male) was shot while it was putting off the female *hartlaubi* plumage, and assuming the male *bourcierii* plumage; and in this transitional state convinced me that the sexes of one species had hitherto been regarded as distinct. Looking further into the question, I found that dissected specimens of *C. melanotis*, Sel., showed that they were all females, and that those called *C. aurantiicollis* were all males, and that where one was found the other was sure also to be with it. It also became apparent that the females of *C. aurantiicollis* and *C. richardsoni* had been put together to form one species, *C. melanotis*, and that they had nothing to do with *C. hartlaubi* (the female of *C. bourcierii*) as has been supposed. Never having seen specimens of either *C. glaucogularis*, Tsch., or *C. tschudii*, Sel., I can say nothing decidedly respecting them, but I would suggest that they too may be the sexes of one species, *C. glaucogularis*, Tschudi.

The synonymy of the other species, according to my conviction, will now stand as follows:—

1. *CAPITO BOURCIERI* (Lafr.).

Micropogon bourcierii, Lafr., R. Z. 1845, p. 179, and 1849, p. 116, t. 3. *Capito bourcierii*, Gray, Gen. B. ii. p. 430; Sel., Ibis, 1861, p. 188, Cat. Am. B. p. 329; Schlegel, Mus. P.-B. *Buccones*, p. 58; Lawr., Ann. Lyc. N. Y. ix. p. 130. *Eubucco boucierii*, Bp. Consp. Av. i. p. 141. *Micropogon hartlaubi*, Lafr., R. Z. 1845, p. 180, 1849, p. 176, t. 6. *Capito*

hartlaubi, Scl., Ibis, 1861, p. 189, Cat. Am. B. p. 330; Schlegel, Mus. P.-B. *Buccones*, p. 61; Lawr., Ann. Lyc. N. Y. ix. p. 130. *C. capistratus*, Eyton, Contr. Orn. 1849, p. 131. *Megalema capistratus*, *Id.*, *op. cit.* 1850, p. 29, t. 45, *Eubucco hartlaubi*, Scl.

Hab. New Granada; Costa Rica (*Carmioli*).

It will be observed that skins of the sexes, according to my view, of this species have been associated together in collections ever since its first introduction to science by Lafresnaye in 1845, when the sexes were described in the same paper as two species; and, again, the recent discovery of the bird in Costa Rica shows both sexes occurring together.

As already observed by Mr. Sclater (Ibis, 1861, p. 188), specimens from Ecuador are larger than those from New Granada. This difference is especially observable in the bill, which is much stouter and longer, and of a clearer yellow colour. The wings of the two races are of the same length. I also observe that the red colouring of the under surface of the Ecuadorean bird is confined to the throat and upper breast, and does not spread downwards over the chest as in the more northern race. Costa-Rican examples are just like New-Granadian as regards the size of the bill; but the breast of the male is rather more golden; in the female the green of the throat is slightly deeper, and the orange of the chest-band rather more dispersed over the under surface. These differences are very slight, and hardly warrant the separation of these races as distinct species.

2. CAPITO RICHARDSONI, G. R. Gray.

Capito richardsoni, Gray, Gen. B. ii. p. 430, t. 106.; Scl., Ibis, 1861, p. 189, Cat. Am. B. p. 329; Schlegel, Mus. P.-B. *Buccones*, p. 59. *Eubucco richardsoni*, Bp. Consp. Av. i. p. 142. *Capito sulphureus*, Eyton, Cont. Orn. 1849, p. 130. *C. melanotis*, Scl., Ibis, 1861, 190 (*partim*); *C. hartlaubi*, Schlegel, Mus. P.-B. *Buccones*, p. 61 (*partim*).

Hab. New Granada.

3. CAPITO AURANTICOLLIS (Sclater).

Eubucco aurantiicollis, Scl., P. Z. S. 1857, p. 267. *Capito aurantiicollis*, *Id.*, Ibis, 1861, p. 189; Cat. Am. B. p. 329;

Schlegel, Mus. P.-B. *Buccones*, p. 60. *Eubucco hartlaubi* "♀ ant juv.," *Scl.*, P. Z. S., 1857, p. 267. *Capito hartlaubi*, Schlegel, *t. c.* p. 62 (*partim*). *C. melanotis*, *Scl.*, *Ibis*, 1861, p. 190 (*partim*); *Scl.* & *Salv.* P. Z. S. 1866, p. 196.

Hab. Upper Amazon (*Bates*, *Hauxwell*, *Bartlett*); Ecuador, Rio Napo.

This species seems to represent in the region of the Upper Amazon and Ecuador the New-Granadian *C. richardsoni*. The female is larger than that of *C. richardsoni*, and has the bill stouter; otherwise, as might be anticipated, they closely resemble one another in coloration.

This arrangement, it will be observed, provides females for each of the species *C. bourcierii*, *C. richardsoni*, and *C. aurantii-collis*, all of which have hitherto been placed as if the males alone were known. After admitting the great disparity between the sexes of *C. maculicoronatus*, *Law.*, the differences here observed are less surprising.

(401 & 402.) [†] *CHRYSOTIS PULVERULENTA* and *C. VIRIDIGENALIS*.

Further information respecting the birds thus named would be acceptable. At present I have only seen *C. guatemalæ* (added to the list in Mr. Lawrence's Appendix) and *C. diademata*, *Spix.* Our specimens from Costa Rica and Veragua of the last-named Parrot agree with others from Panama, which Dr. Finsch (*Papageien*, ii. p. 545) considers identical with *C. diademata*.

In his Appendix, Mr. Lawrence (*op. cit.* pp. 144, 145) adds seven species to the previous list, describing a Tyrant-Flycatcher, under the name "*Pogonotriccus? zeledoni*," and then goes on to correct some of his previous determinations. To most of these corrections I have already drawn attention in my former paper. As regards *Asturina nitida**, formerly so called, our specimens from Panama, both adult and young, belong decidedly to the southern, and not to the more northern race (*cf.* *Exot. Orn.* t. 79). The northern bird has since been called *A. polionota* by Dr. Cabanis (*J. f. O.* 1869, p. 208), which

* See *Scl.* & *Salv.*, P. Z. S. 1868, p. 173.

name must be treated as a synonym of *A. plagiata*, Schl. In his note on *Geotrygon chiriquensis*, Mr. Lawrence complains that Mr. Sclater and I misled him into giving a new name to the species, by having wrongly united *G. albifacies* to *G. chiriquensis* (Exot. Orn. t. 39); but regretting, as I do, the error we made, I think Mr. Lawrence was in a position to put us right when he had the true *G. chiriquensis* before him, having indeed the same materials in his hands which ultimately gave us the clue to our error. The anomalous fact of a distinct species occurring in Costa Rica, and intercepting the range of our so-called *G. chiriquensis* was sufficient to render the reopening of the question a prudent step.

I now record the additional species, all of which, except nos. 7 and 19, have been forwarded to us by Mr. Carmiol since the publication of my former notes:—

1. GEOTHYLPIS POLIOCEPHALA, Baird, Rev. Am. B. p. 225 : *G. æquinoctialis*, Sel. & Salv., Ibis, 1860, p. 273.

2. STELGIDOPTERYX FULVIPENNIS (Sel.), (*vide suprâ*).

3. CALLISTE FLORIDA, Sel. & Salv., P. Z. S. 1869, p. 416, t. xxviii.

4. HÆMOPHILA RUFICAUDA (Bp.); Sel., Cat. Am. B. p. 118.

In a former note on *Zonotrichia melanotis*, Lawr. (Ibis, 1868, p. 115), I inadvertently wrote *humeralis* for *ruficauda*, certainly intending to say that *Z. melanotis* appeared to be allied to, or perhaps the same as *H. ruficauda*. I have now seen both species, and am satisfied they are distinct, though near allies.

5. CYANOCITTA ORNATA (Less.); Sel., Cat. Am. B. p. 143.

6. CALOCITTA FORMOSA (Sw.); Sel., Cat. Am. B. p. 145.

The acquisition of these two species of *Corvidæ* makes a great addition to the Bird-fauna of Costa Rica.

7. THAMNOPHILUS IMMACULATUS, Lafr., R. Z. 1845, p. 340 : Sel., Cat. Am. B. p. 173 : *Phlogopsis ellisiana*, Sel., P. Z. S. 1855, p. 109, t. 100, Cat. Am. B. Ap. p. 360 (♀ aut ♂ juv.).

We possess a single male specimen of this species, obtained by Arcé at Tucurriquí in Costa Rica. The same collector has sent us adult and young males from Veragua. The latter agree very well with the specimen (not the type, which is in the British Museum) in Mr. Selater's cabinet called *Phlogopsis ellisiana*. *T. immaculatus* must not be confounded with *T. leuconotus* of Spix (Av. Bras. ii. p. 28, t. 39, f. 2), of which *T. melanocephus* is the female. Males of the two species are very much alike; but *T. immaculatus* has a longer tail. The females are quite different.

—8. LEPTOPOGON SUPERCILIARIS, Cab.; Sel., Cat. Am. B. p. 214.

We have also received this species from Veragua (*Arcé*).

—9. CONTOPUS OCHRACEUS, Sel. & Salv., P. Z. S. 1869, p. 419.

—10. TROGON MELANOCEPHALUS, Gould, Mon. Trogonidæ, pl.

—11. AMAZILIA CINNAMOMEA (Less.); Gould, Intr. Troch. p. 156.

—12. HARPAGUS FASCIATUS, Lawr., Proc. Ac. Philad., 1868, p. 429: *H. bidentatus*, Sel. & Salv., Ibis, 1859, p. 219.

We have two specimens in apparently adult plumage of this form, which seems to differ from the South-American *H. bidentatus*; but the phases of plumage of the latter are so numerous that I feel rather sceptical as to whether the Central-American race will ultimately rank as a species.

—13. COLUMBA RUFINA, Temm., Fig. t. 24.

+ 14. CRYPTURUS BOUCARDI (Sel.); Sel. & Salv., Exot. Orn. t. 46.

—15. ARAMUS HOLOSTICTUS (Cab.), J. f. O. 1856, p. 426.

—16. PORPHYRIO MARTINICUS (L.); Sel. & Salv., P. Z. S. 1868, p. 459.

—17. GALLINULA GALEATA, Licht.; Sel. & Salv., P. Z. S. 1868, p. 462.

18. *PARRA GYMNOTOMA*, Wagl. ; *Sci. & Salv.*, Ibis, 1859, p. 231.

19. *PHAETON FLAVIROSTRIS*, Brandt, *Mém. Ac. St. Pétersb. Sc. Nat.* iii. (1840), p. 263, t. iii. f. 1, 2.

Gulf of Nicoya (*Arcé*).

The Ornis of Costa Rica, as regards numbers, will now stand as follows :—

Number as given in Mr. Lawrence's Catalogue, with Appendix.	511
Additions given by myself (Ibis, 1869, p. 319) less two also included by Mr. Lawrence	13—2 11
Additions now given	19
	—541
Deduct 6 Veraguan Humming-birds, not yet recorded from Costa Rica proper	6
Also 14 species, mentioned in my paper (Ibis, 1869, p. 318)	14
<i>Capito hartlaubi</i> , now shown to be the female of <i>C. bourcierii</i>	1
	— 21
Total remaining	<u>520</u>

It must be observed that the orders *Grallæ*, *Lamellirostres*, *Steganopodes*, and *Pygopodes* of Mr. Lawrence's catalogue are but poorly represented; indeed the *Laridæ* are altogether omitted. Considerable additions may be anticipated amongst the members of these orders, which are known to frequent the coasts of Central America.

VIII.—Notices of Recent Ornithological Publications.

OWING to the large number of works published within the last nine months which demand our attention, the notice we can accord to them must necessarily be far more brief than we could wish, and in several instances we cannot attempt to give such an abstract of their contents as many of them deserve.

1. ENGLISH.

The first portion of Mr. George Gray's 'Hand-List'*, the in-

* Hand-List of Genera and Species of Birds, distinguishing those contained in the British Museum. By G. R. GRAY, F.R.S. &c. Assistant